

CLAIMS

1. A spiral double-twisted structure particularly suitable for a gabion unit of a gabion mesh, comprising:

5 i) an n-th upper steel wire ( $A_n$ ) and an n-th lower steel wire ( $B_n$ ) which are paired with each other and rotated in one direction to form a front spiral twisted structure,

ii) a k-th transverse steel wire ( $C_k$ ) which is transversely inserted between the n-th upper steel wire ( $A_n$ ) and the n-th lower steel wire ( $B_n$ ) of the front spiral twisted structure, and

10 iii) the n-th upper steel wire ( $A_n$ ) and the n-th lower steel wire ( $B_n$ ) which are rotated in a direction opposite to the one direction after passing over the k-th transverse steel wire ( $C_k$ ) serving as a centerline, in order to form a rear spiral twisted structure, where k represents the relative position relationship among transverse steel wires and is a positive integer including 0, and n represents the relative position relationship among the upper and  
15 lower steel wires and is a positive integer including 0.

2. A gabion unit including two longitudinal steel wires and one transverse steel wire, comprising:

20 1) one k-th spiral double-twisted structure including a k-th transverse steel wire ( $C_k$ );

2) two (k+1)-th spiral double-twisted structures including a (k+1)-th transverse steel wire ( $C_{k+1}$ ); and

25 3) one (k+2)-th spiral double-twisted structure including a (k+2)-th transverse steel wire ( $C_{k+2}$ ), where k represents the relative position relationship among the transverse steel wires and is a positive integer including 0.

3. The gabion unit as claimed in claim 1, wherein the k-th spiral double-twisted structure is formed in such a manner that:

30 i) an n-th upper steel wire ( $A_n$ ) and an n-th lower steel wire ( $B_n$ ) are paired with each other and rotated in one direction to form a front spiral twisted structure,

ii) the  $k$ -th transverse steel wire ( $C_k$ ) is transversely inserted between the  $n$ -th upper steel wire ( $A_n$ ) and the  $n$ -th lower steel wire ( $B_n$ ) of the front spiral twisted structure, and

iii) the  $n$ -th upper steel wire ( $A_n$ ) and the  $n$ -th lower steel wire ( $B_n$ ) are rotated in a direction opposite to the one direction after passing over the  $k$ -th transverse steel wire ( $C_k$ ) serving as a centerline, in order to form a rear spiral twisted structure, where  $k$  represents the relative position relationship among the transverse steel wires and is a positive integer including 0, and  $n$  represents the relative position relationship among the upper and lower steel wires and is a positive integer including 0.

4. The gabion unit as claimed in claim 1, wherein the  $(k+1)$ -th spiral double-twisted structure is formed in such a manner that:

i) the  $n$ -th upper steel wire ( $A_n$ ) is paired with an adjacent  $(n+1)$ -th lower steel wire ( $B_{n+1}$ ) and an  $(n-1)$ -th upper steel wire ( $A_{n-1}$ ) is paired with the  $n$ -th lower steel wire ( $B_n$ ), and the pairs of steel wires are then rotated in the one direction to form front spiral twisted structures, respectively,

ii) the  $(k+1)$ -th transverse steel wire ( $C_{k+1}$ ) is transversely inserted between the paired two longitudinal steel wires of each of the front spiral twisted structures, and

iii) the paired two longitudinal steel wires are rotated in the direction opposite to the one direction after passing over the  $(k+1)$ -th transverse steel wire ( $C_{k+1}$ ) serving as a centerline, in order to form a rear spiral twisted structure, where  $k$  represents the relative position relationship among the transverse steel wires and is a positive integer including 0, and  $n$  represents the relative position relationship among the upper and lower steel wires and is a positive integer including 0.

5. The gabion unit as claimed in claim 1, wherein the  $(k+2)$ -th spiral double-twisted structure is formed in such a manner that:

i) the  $n$ -th upper steel wire ( $A_n$ ) is paired again with the  $n$ -th lower steel wire ( $B_n$ ) and they are then rotated in the one direction to form a front spiral twisted structure,

ii) the  $(k+2)$ -th transverse steel wire ( $C_{k+2}$ ) is transversely inserted between the

paired upper and lower steel wires ( $A_n$ ,  $B_n$ ) of the front spiral twisted structure, and

iii) the paired upper and lower steel wires ( $A_n$ ,  $B_n$ ) are rotated again in the direction opposite to the one direction after passing over the  $(k+2)$ -th transverse steel wire ( $C_{k+2}$ ) serving as a centerline, in order to form a rear spiral twisted structure, where  $k$  represents the relative position relationship among the transverse steel wires and is a positive integer including 0, and  $n$  represents the relative position relationship among the upper and lower steel wires and is a positive integer including 0.

6. A gabion mesh, comprising:

gabion units according to any one of claims 2 to 5 consecutively and repeatedly coupled to one another both in a right and left direction and in a fore and aft direction.